

RESPONSE TO THE FINAL OFFICE ACTION MAILED May 14, 2004
Patent Application No. 09/734,432

1. **(currently twice amended)** A passive identification system, comprising:

a body part input means for generating an information signal impressed with characteristics of a body part, wherein the information signal includes one or more generation errors based on variances of the body part;

an index generation means for dynamically generating one or more indices from the information signal, wherein the one or more indices are ~~created~~ generated by processing the information signal by selecting only a portion of the information signal such that generation errors based on variances of the body part are determined to be within than a pre-determined error level within the selected portion of the information signal and generating the one or more indices using only the selected portion of the information signal; and

a linking means to link at least one of said indices to an identity for the body part.

2. **(previously amended)** The passive identification system of claim 1 wherein an index from the one or more indices of said index generation means is a function of a subset of data of the information signal.

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3. (currently twice amended) The passive identification system of claim 1 wherein said index generation means comprises means to generate said one or more indices from different partial information from said selected portion of the information signal or transformation of said selected portion of the information signal.

4. (previously amended) The passive identification system of claim 1 wherein said information signal is an information signal impressed with characteristics of a body part including a human eye.

5. (currently twice amended) A private biometric identification system, comprising:

a body part input means for generating an information signal impressed with characteristics of a body part, wherein the information signal includes one or more generation errors based on variances of the body part;

an index generation means for dynamically generating one or more indices from the information signal by selecting a only portion of the information signal such that generation errors based on variances of the body part are determined to be within than a pre-determined error level within the selected portion of the information signal and generating the one or more indices using only the selected portion of the information signal;

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an information hiding means for hiding at least one index to obtain transformed biometric templates;

a transmission means for transmitting of at least one transformed biometric template and index pair; and

a verification means for verifying of transformed biometric template with template linked by associated index.

6. (original) The private biometric system of claim 5 wherein said information signal is generated from multiple readings of said body part.

7. (previously amended) The private biometric identification system of claim 5 wherein said information hiding means includes a transformation of said information signal exclusive-ored with an index.

8. (previously amended) The private biometric identification system of claim 5 wherein said verification means further includes is a hamming weight test.

9. (previously amended) The private biometric identification system of claim 5 wherein said verification means further includes validation for authorization.

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10. **(currently twice amended)** A private biometric information system, comprising:

a body part input means for generating an information signal impressed with characteristics of a body part;

a transmission means for transmitting one or more indices from an index generation means to a database, for transmitting a biometric template indexed by said one or more indices to accept points, and for transmitting transformed biometric templates generated by an information hiding means to an access point; and

a verification means of said transformed biometric templates.

11. **(previously amended)** The private biometric identification system of claim 10 wherein said biometric template includes at least one said index composed with said information signal.

12. **(currently amended)** The passive identification system of Claim 4 10 wherein the index generation means includes applying error correcting codes to reduce errors in the information signal before dynamically generating one or more indices from the information signal.

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13. **(currently amended)** The passive identification system of Claim ~~13~~ 12 wherein the error correcting codes include computing roots of a polynomial $\sigma(z)$ over a Galois Field $GF(2^n)$.

14. **(original)** The passive identification system of Claim 1 wherein the index generation means includes dynamically generating one or more indices from the information signal by generating the one or more indices as hash values using a pre-determined hashing function on the information signal.

15. **(original)** The passive identification system of Claim 1 wherein the one or more indices generated from the information signal cannot be used to reveal information about the characteristics of the body part included in the information signal.

16. **(currently amended)** A method for passive biometric identification, comprising:

generating an information signal impressed with characteristics of a body part,
wherein the information signal includes one or more generation errors based on
variances of the body part;

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selecting a portion of the information signal such that generation errors based on
variances of the body part are determined to be within than a pre-determined error
level within the selected portion of the information signal;
processing the selected portion of the information signal to remove errors thereby
creating a processed information signal;
dynamically generating one or more indices from the processed information
signal, wherein one or more indices generated from the information signal cannot be used
to reveal information about the body part included in the processed information signal;
obtaining a biometric template using the one or more generated indices, wherein
the biometric template includes an identity for the body part; and
verifying the identity for the body part in the biometric template using the one or
more generated indices.

17. (currently amended) The method of Claim 16 wherein the step of processing
the selected portion of the information signal to remove errors includes processing the
information signal with error correcting codes by computing roots of a polynomial $\sigma(z)$
over a Galois Field $GF(2^m)$.

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18. **(currently amended)** The method of Claim 16 wherein the step of dynamically generating one or more indices includes dynamically generating the one or more indices as hash values using a ~~pre-determined~~ predetermined hashing function on the processed information signal.

19. **(original)** The method of Claim 16 wherein the one or more indices generated from the processed information signal cannot be used to reveal information about the characteristics of the body part included in the information signal

20. **(original)** The method of Claim 16 wherein the information signal is an information signal impressed with characteristics of a body part including a human eye.